

The following Listing of the Claims will replace all prior versions and all prior listings of the claims in the present application:

1. (Currently Amended): A micro-dimensional probe comprising:
 - a) an electrode pair array attached to a substrate material;
 - b) a branched nanotube cantilever comprising: array configured in a cantilever arrangement comprising a plurality of microparticulate ferromagnetic materials attached to the electrode array; and
 - i) at least one ferromagnetic material; and
 - ii) at least two tubules attached to the electrode pair; and
 - c) an electrical circuit coupling the electrode pair array to a probe component.
 2. (Currently Amended): The micro-dimensional probe of claim 1, wherein the branched nanotube cantilever exhibits piezoresistance.
- Claim 3 cancelled.
4. (Currently Amended): The micro-dimensional probe of claim ~~3~~ 1, wherein the branched carbon nanotube cantilever comprises at least one tubule with has a Y-shaped or V-shaped morphology.
 5. (Currently Amended): The micro-dimensional probe of claim ~~3~~ 1, wherein the branched carbon nanotube cantilever has a multi-walled morphology.
 6. (Currently Amended): The micro-dimensional probe of claim ~~4~~ 1, wherein the tubules have ~~has~~ a diameter ranging between 1 nanometer and 100 nanometers.
 7. (Currently Amended): The micro-dimensional probe of claim ~~4~~ 1, wherein the tubules have ~~has~~ a diameter ranging between 1 nanometer and 50 nanometers.

8. (Currently Amended): The micro-dimensional probe of claim 4, wherein the Y-shaped or V-shaped morphology comprises a tubules having a length ranging between 0.1 micrometer and 100 micrometers.
9. (Currently Amended): The micro-dimensional probe of claim 4, wherein the Y-shaped or V-shaped morphology comprises a tubules having a length ranging between 1 micrometer and 10 micrometers.
10. (Original): The micro-dimensional probe of claim 1, wherein the ferromagnetic material comprises at least one transition metal.
11. (Original): The micro-dimensional probe of claim 10, wherein the transition metal is selected from the group consisting of iron, cobalt, nickel and combinations and alloys thereof.
12. (Original): The micro-dimensional probe of claim 1, that is part of a microscopic imaging device.
13. (Original): The micro-dimensional probe of claim 12, having a nanoscale dimension.
14. (Original): The micro-dimensional probe of claim 13, wherein the microscopic imaging device is an MFM or MRFM device.
15. (Original): The micro-dimensional probe of claim 14, that provides detection with nanoscale resolution.

Claims 16-43 cancelled.

44. (Original): A method of sensing or manipulating a microscopic environment or structure using the micro-dimensional probe of claim 1, comprising:
 - a) passage of an electric current through the micro-dimensional probe; and

b) detecting a cantilever tip motion generated by the electric current passage through the micro-dimensional probe by measuring a change in piezoresistance upon deflection from the surface of a sample.

45. (New): The micro-dimensional probe of claim 1 comprising a plurality of branched carbon nanotube cantilevers arranged in an array.
46. (New): The microdimensional probe of claim 1 wherein the branched nanotube cantilever is a branched carbon nanotube cantilever.
47. (New): The microdimensional probe of claim 1 wherein the ferromagnetic is a material is a magnetic sensor material.